



Box Seq- GAU-1815

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

q/c  
B. Denny  
1/28/98

In re Application of:

GEERT MAERTENS  
LIEVEN STUYVER

Serial No.: 08/836,075

Filing Date: April 21, 1997

For: NEW SEQUENCES OF HEPATITIS C  
VIRUS GENOTYPES AND THEIR USE AS  
PROPHYLACTIC, THERAPEUTIC AND  
DIAGNOSTIC AGENTS

Group Art Unit: 1815

Examiner: M. Zeman

Attorney Docket: INNS004/KAM

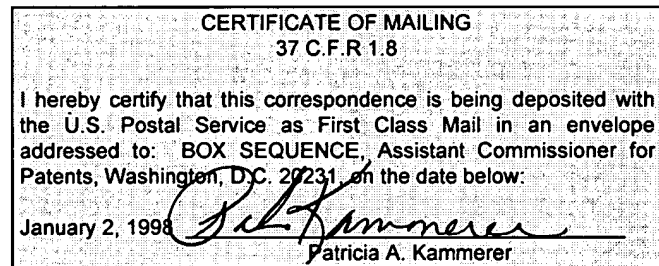
RECEIVED

JAN 12 1998

GROUP 1800

STATEMENT AND AMENDMENT AS REQUIRED  
UNDER 37 CFR 1.821(f) AND (h)

BOX SEQUENCE  
Assistant Commissioner for Patents  
Washington, D.C. 20231



Sir:

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated December 4, 1997, applicants supply the enclosed Sequence Listing comprising one (1) computer readable form (diskette) and one hundred and six (106) pages. Also enclosed is a copy of the CRF Diskette Problem Report supplied with the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated December 4, 1997. The undersigned

hereby certifies that the diskette and the paper copy of the Sequence Listing submitted herewith are identical to each other. The undersigned further certifies that this sequence listing does not go beyond the disclosure in the International Application as filed.

**Amendment to the Specification:**

Applicants respectfully request the enclosed paper copy of the Sequence Listing be entered into the specification of the application and made a part thereof.

Respectfully submitted,



Patricia A. Kammerer

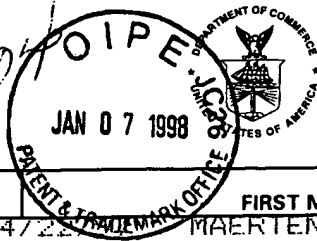
Reg. No. 29,775

ATTORNEY FOR ASSIGNEE,  
INNOGENETICS N.V.

ARNOLD, WHITE & DURKEE  
P. O. Box 4433  
Houston, Texas 77210-4433  
(713) 787-1438

January 2, 1998

HLEN  
INNS



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
087836, 075	04/22	MAERTENS	INNS: 0047/KAM

18M1/1204

PATRICIA A KAMMERER  
ARNOLD WHITE & DURKEE  
PO BOX 4433  
HOUSTON TX 77210-4433

EXAMINER	
ZEMAN, M	
ART UNIT	PAPER NUMBER
1815	2

DATE MAILED: 12/04/97

RECEIVED

Please find below a communication from the EXAMINER in charge of this application

Commissioner of Patents

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). A computer readable form (CRF) of the sequence listing was submitted. However, the CRF could not be processed by the Scientific and Technical Information Center (STIC) for the reason(s) set forth on the attached CRF Diskette Problem Report.

Any inquiry concerning this communication should be directed to Examiner Mary K Zeman, Art Unit 1815 whose telephone number is (703) 305-7133.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

APPLICANT IS GIVEN ONE MONTH FROM THE DATE OF THIS LETTER WITHIN WHICH TO COMPLY WITH THE SEQUENCE RULES, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136. In no case may an applicant extend the period for response beyond the six month statutory period. Direct the response to the undersigned. Applicant is requested to return a copy of the attached CRF Diskette Problem Report with the response.

mkz  
8/4/97

Comply With Sequence Rules  
DOCKETED  
FOR 1-4-98  
BY Chu  
CHK'D BY [Signature]

Marian C Knobe

MARIAN C. KNOBE  
SUPERVISORY PATENT EXAMINER  
GROUP 1800

REC'D - A.W.D.

DEC 08 1997

DOCKET DEPT

Application No.: 08/836,075

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING  
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s)

- ☐ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: \_\_\_\_\_

**Applicant Must Provide:**

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

For PatentIn software help, call (703) 308-6856

**PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE**

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/836,075DATE: 10/08/97  
TIME: 13:05:11

INPUT SET: S20848.raw

This Raw Listing contains the General  
Information Section and those Sequences  
containing ERRORS.

Does Not Comply  
Corrected Diskette Needed

## SEQUENCE LISTING

## (1) General Information:

(i) APPLICANT: MAERTENS, GEERT  
STUYVER, LIEVEN

(ii) TITLE OF INVENTION: NEW SEQUENCES OF HEPATITIS C VIRUS GENOTYPES  
AND THEIR USE AS PROPHYLACTIC, THERAPEUTIC AND DIAGNOSTIC  
AGENTS

(iii) NUMBER OF SEQUENCES: 207

## (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: ARNOLD, WHITE & DURKEE  
(B) STREET: P.O. BOX 4433  
(C) CITY: HOUSTON  
(D) STATE: TEXAS  
(E) COUNTRY: USA  
(F) ZIP: 77210-4433

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: Microsoft Word 6.0 / ASCII text output

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 08/836,075  
(B) FILING DATE: 21 Apr 1997

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: PCT/EP95/04155  
(B) FILING DATE: 23 Oct 1995

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: EP 94870166.9  
(B) FILING DATE: 21 Oct 1994

## (viii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: EP 95870076.7  
(B) FILING DATE: 28 Jun 1995

## (ix) ATTORNEY/AGENT INFORMATION:

(A) NAME: KAMMERER, PATRICIA A.

INPUT SET: S20848.raw

46  
47  
48(B) REGISTRATION NUMBER: 29,775  
(C) REFERENCE/DOCKET NUMBER: INNS:004

## ERRORED SEQUENCES FOLLOW:

893 (2) INFORMATION FOR SEQ ID NO: 22:  
894  
895 1 (i) SEQUENCE CHARACTERISTICS:  
--> 896 (A) LENGTH: 48 amino acids  
--> 897 (B) TYPE: amino acid  
--> 898 *delete* (D) TOPOLOGY: linear  
899  
900 (ii) MOLECULE TYPE: peptide  
901  
902  
903  
--> 904 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:  
905  
906 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
907 1 5 10 15  
908  
909 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Arg Ser Leu Ala  
910 20 25 30  
911  
912 Glu Tyr Thr Cys Ala Arg Arg Gly Lys Leu Arg Arg Ser Ser Met Gly  
913 35 40 45  
914  
915

---

950 (2) INFORMATION FOR SEQ ID NO: 24:  
951  
952 (i) SEQUENCE CHARACTERISTICS:  
--> 953 (A) LENGTH: 149 amino acids  
954 (B) TYPE: amino acid  
955 (D) TOPOLOGY: linear *see next page*  
956  
957 (ii) MOLECULE TYPE: peptide  
958  
959  
960  
961 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:  
962  
963 Asp Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser  
964 1 5 10 15  
965  
966 Ile Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
967 20 25 30  
968  
969 Val Gln Val Lys Asn Thr Ser His Ser Tyr Met Val Thr Asn Asp Cys

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/836,075

DATE: 10/08/97  
TIME: 13:05:15

INPUT SET: S20848.raw

```

970          35          40          45
971
972      Ser Asn Ser Ser Ile Val Trp Gln Leu Lys Asp Ala Val Leu His Val
973          50          55          60
974
975      Pro Gly Cys Val Pro Cys Glu Arg His Gln Asn Gln Ser Arg Cys Trp
976      65          70          75          80
977
978      Ile Pro Val Thr Pro Asn Val Ala Val Ser Gln Pro Gly Ala Leu Thr
979          85          90          95
980
--> 981      Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Thr Val 1
982          100          105          110
983
984      Cys Ser Ala Leu Tyr Val Gly Asp Phe Cys Gly Ala Val Met Leu Val
985          115          120          125
986
987      Ser Gln Phe Phe Met Ile Ser Pro Gln His His Ile Phe Val Gln Asp
988          130          135          140
989
990      Cys Asn Cys Ser Ile
991      145
992

```

1161 (2) INFORMATION FOR SEQ ID NO: 30:

1162

(i) SEQUENCE CHARACTERISTICS:

--> 1164 (A) LENGTH: 149 amino acids  
1165 (B) TYPE: amino acid  
1166 (D) TOPOLOGY: linear

1167

(ii) MOLECULE TYPE: peptide

1168

1169

1170

1171

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

1172

1173

1174 Asp Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser

1175 1 5 10 15

1176

1177 Ile Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala

1178 20 25 30

1179

1180 Ile Asn Tyr Arg Asn Val Ser Gly Ile Tyr Tyr Val Thr Asn Asp Cys

1181 35 40 45

1182

1183 Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp His His Ile Leu His Leu

1184 50 55 60

1185

1186 Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Gln Ser Arg Cys Trp

1187 65 70 75 80

1188

1189 Val Ala Leu Thr Pro Thr Val Ala Ala Pro Tyr Ile Gly Ala Pro Leu

*See next page*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/836,075DATE: 10/08/97  
TIME: 13:05:17

INPUT SET: S20848.raw

1190 85 90 95  
1191  
1192 Glu Ser Leu Arg Ser His Val Asp Leu Met Val Gly Ala Ala Thr Val  
1193 100 105 110  
1194  
--> 1195 Cys Ser Ala Leu Tyr Ile Gly Asp Xaa Cys Xa Gly Leu Phe Leu Val  
1196 115 120 125  
1197  
1198 Gly Gln Met Phe Ser Phe Arg Pro Arg Arg His Trp Thr Thr Gln Asp  
1199 130 135 140  
1200  
1201 Cys Asn Cys Ser Ile  
1202 145  
1203

## (2) INFORMATION FOR SEQ ID NO: 31:

1204  
1205  
1206 (1) SEQUENCE CHARACTERISTICS:  
--> 1207 (A) LENGTH: 447 base pairs → 448 shown  
1208 (B) TYPE: nucleic acid  
1209 (C) STRANDEDNESS: single  
1210 (D) TOPOLOGY: linear

1211 (ii) MOLECULE TYPE: cDNA

1212 (iii) HYPOTHETICAL: NO

1213 (iii) ANTI-SENSE: NO

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

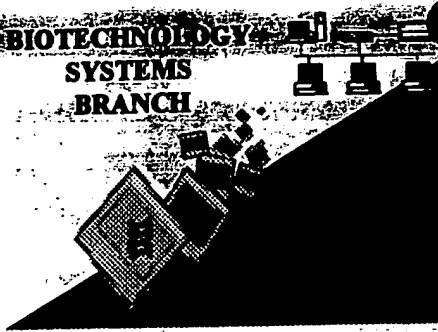
1221  
1222 GACGGGATCA ATTATGCAAC AGGGAACCTT CCCGGTTGCT CTTTTTCTAT CTCCTCTTG 60  
1223  
1224 GCACTCCTCT CGTGCCTGAC TGTTCCCGCT TCGGCCATTA ACTACCGCAA CACCTCGGGC 120  
1225  
1226 ATCTACCACG TCACCAATGA CTGCCCCGAAC TCGAGCATAG TTTATGAGGC CGACCACCAC 180  
1227  
1228 ATCTTGCACC TTCCAGGTTG CGTGCCCTGC GTGAGAACTG GGAATCAGTC ACGTTGCTGG 240  
1229  
1230 GTGGCCCTTA CTCCTACCGT CGCAGCGCCA TACATCGGCG CACCGCTTGA GTCTCTGCGG 300  
1231  
1232 AGTCATGTGG ATCTGATGGT GGGGGCTGCC ACTGTTTGCT CAGCCCTTTA CATCGGGGAT 360  
1233  
--> 1234 TTGTGTGGCG GCTTGTCTT GGTGGTCAG ATGTTTCTT TCCGACCACCG ACGCCACTGG 420 421  
1235 *prev 2 of 11*  
1236 ACTGCCCAGG ATTGCAATTG TTCTATC 447 448  
1237



SEQUENCE VERIFICATION REPORT  
PATENT APPLICATION US/08/836,075DATE: 10/08/97  
TIME: 13:05:21

INPUT SET: S20848.raw

Line	Error	Original Text
866	Entered (310) and Calc. Seq. Length (0) differ	(A) LENGTH: 310 base pairs
896	Unknown or Misplaced Identifier	(A) LENGTH: 48 amino acids
897	Unknown or Misplaced Identifier	(B) TYPE: amino acid
898	Unknown or Misplaced Identifier	(D) TOPOLOGY: linear
904	Wrong Or Missing Strandedness Value	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
904	Wrong or Missing Sequence Topology	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
953	Entered (149) and Calc. Seq. Length (148) differ	(A) LENGTH: 149 amino acids
981	Wrong Amino Acid Designator	Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Th
981	Wrong Amino Acid Designator	Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Th
1164	Entered (149) and Calc. Seq. Length (148) differ	(A) LENGTH: 149 amino acids
1195	Wrong Amino Acid Designator	Cys Ser Ala Leu Tyr Ile Gly Asp Xaa Cys Xa Gly Leu Phe
1207	Entered (447) and Calc. Seq. Length (448) differ	(A) LENGTH: 447 base pairs
1234	# of Sequences for line conflicts w/ running total	TTGTGTGGCG GCTTGTTCTT GGTTGGTCAG ATGTTT



## Notice of Availability of Checker Program

### Applicant Aid for Biotechnology Computer Readable Form (CRF) Sequence Listing Submissions

The Patent and Trademark Office (PTO) has developed a computer program, called Checker, that will aid applicants in identifying and correcting errors prior to making submissions for compliance with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (Sequence Rules: 37CFR 1.821 through 1.825). Final rules were published in the *Federal Register* (55 FR18230) on May 1, 1990, and in the PTO *Official Gazette* (1114 Off.Gaz.PatOffice 29) on May 15, 1990.

Checker is a DOS-based software program that is intended to assist users in determining whether errors may be present in the sequence listings, and is not intended to guarantee that the submission is error-free.

The most current version of the software is available via computer downloading, details are below. Copies on diskette are also available. Updated software versions will not be automatically mailed out; any updates will be announced in the PTO *Official Gazette*.

The software can be accessed/requested from the following locations:

- 1) Dial-up access through the Internet. Location is <ftp://ftp.uspto.gov>  
The software is in current directory: pub/checker/  
Download all the files. Cost: Free-of-charge
- 3) For diskette copies, mail to: U.S.P.T.O., OEIP, CRYSTAL PARK 3, SUITE 441  
WASHINGTON DC 20231

**COST FOR DISKETTE IS \$ 25.00**

#### METHOD OF PAYMENT:

Check payable to Commissioner of Patents and Trademarks  
VISA/ Mastercard/ Charge- Charges can be faxed to 703-306-2737  
PTO Deposit Account

For Further Information, Contact: **Arti Shah at 703-308-4212**